

Abstract

[00132] Systems for handling and/or dispensing hydrogen or a mixture of fuels containing hydrogen gas including refueling stations for hydrogen-powered vehicles. Pure hydrogen or various mixtures ratios of hydrogen and CNG may be dispensed. Hydrogen handling equipment may include a hydrogen generator, a pressurizing apparatus or compressor, pressure vessels, piping, valves, vent pipes, and/or a dispenser. Substantially vertical orientation of pressure vessels may reduce the amount of land required and facilitate installation in urban environments. Pressurization may take place before hydrogen generation to reduce the power required for pressurization. Safety features include enclosures and surrounding walls that lean away from the equipment. Any leaking hydrogen, fires, or explosions may be contained and/or directed upward, protecting human life and property. Systems may be shop assembled and certified.